

CLAIM AMENDMENTS

1. (Original) A method usable with a memory device, comprising:
receiving a data strobe signal from a memory bus;
capturing data associated with a write command from the memory bus in synchronization with the data strobe signal;
performing a column redundancy check in response to an address associated with the write command; and
synchronizing the beginning of an internal write operation to a memory cell array of the memory device to a clock signal.

2.-36. (Cancelled)

37. (New) A method usable with a memory device, comprising:
performing a column redundancy check; and
synchronizing the beginning of an internal write operation to a memory cell array of the memory device to a clock signal.

38. (New) The method of claim 37, wherein the internal write operation begins on an edge of the clock signal.

39. (New) The method of claim 37, further comprising:
providing column select signals to the memory cell array in synchronization with the clock signal.

40. (New) The method of claim 39, wherein the providing of the column select signals comprises:
latching the column select signals synchronously with an edge of the clock signal.

41. (New) The method of claim 39, wherein the latching of the column select signals comprises asserting a column address trap signal synchronously with the edge of the clock signal.

42. (New) The method of claim 37, wherein the column redundancy check is performed beginning on a first edge of the clock signal and the providing of the column select signals begins on another edge of the clock signal.

43. (New) A method usable with a memory device, comprising:
providing column select signals indicative of a column address to a memory cell array of the memory device; and
performing a column redundancy check prior to the initiation of the providing of the column select signals.

44. (New) The method of claim 43, wherein the providing of the column select signals comprises latching the column select signals synchronously with an edge of a clock signal.

45. (New) The method of claim 44, further comprising:
latching data associated with a write command in response to a data strobe signal, wherein the latching of the column select signals comprises asserting a column address trap signal synchronously with the edge of the clock signal.

46. (New) The method of claim 43, wherein the performing of the column redundancy check begins on a first edge of a clock signal and the providing of the column select signals begins on another edge of the clock signal.

47. (New) The method of claim 46, wherein said another edge comprises the next successive edge of the clock signal after the first edge.

48. (New) The method of claim 43, further comprising:
asserting another signal to equalize a data I/O line of the memory device for a first time interval that begins after the providing of the column select signals.
49. (New) The method of claim 48, further comprising:
deasserting said another signal to terminate the first time interval; and
beginning an internal read operation after the deassertion of said another signal.
50. (New) The method of claim 49, further comprising:
asserting said another signal after the beginning of an internal read operation for a second time interval less than the first time interval.
51. (New) The method of claim 43, wherein the memory device comprises a double data rate (DDR) synchronous dynamic random access memory (SDRAM).
52. (New) A memory device comprising:
a memory cell array;
a first circuit to perform a column redundancy check in response to a decoded address;
and
a second circuit to synchronize an initiation of an internal write operation to the memory cell array with a clock signal.
53. (New) The memory device of claim 52, wherein the second circuit synchronizes the initiation of an internal write operation to an edge of the clock signal.
54. (New) The memory device of claim 52, wherein the first circuit further provides column select signals to the memory cell array in synchronization with the clock signal.
55. (New) The memory device of claim 54, wherein the first circuit latches the column select signals synchronously with an edge of the clock signal.

56. (New) The memory device of claim 55, wherein the second circuit pulses a column address trap signal synchronously with an edge of the clock signal, and the first circuit latches the column select signals in response to a pulse of the column address trap signal.

57. (New) The memory device of claim 52, wherein the first circuit performs the column redundancy check beginning on a first edge of a clock signal and provides the column select signals beginning on another edge of the clock signal.

58. (New) A memory device comprising:
a memory cell array;
an addressing circuit; and
a control circuit to cause the addressing circuit to perform a column redundancy check during a delay to accommodate variations in the timing of a data strobe signal and begin providing column select signals to the memory cell array after performing the column redundancy check.

59. (New) The memory device of claim 58, wherein the addressing circuit provides the column select signals by latching the column select signals synchronously with an edge of a clock signal.

60. (New) The memory device of claim 59, wherein the addressing circuit latches the column select signals in response to a column address trap signal, and the control circuit asserts column address trap signal synchronously with the edge of the clock signal.

61. (New) The memory device of claim 59, wherein the addressing circuit begins performing the column redundancy check on a first edge of the clock signal and begins providing a column select signals on another edge of the clock signal.

62. (New) The memory device of claim 61, wherein said another edge comprises the next successive edge of the clock signal after the first edge.

63. (New) The memory device of claim 58, wherein the control circuit asserts another signal to equalize data I/O lines coupled to the memory array for a first time interval that begins after the addressing circuit provides column select signals.

64. (New) The memory device of claim 58, wherein the memory device comprises a double data rate (DDR) synchronous dynamic random access memory (SDRAM).

65. (New) A computer system comprising:
a memory bus;
a memory controller coupled to the memory bus;
a central processing unit to cause the memory controller to furnish signals to the memory bus to cause a memory operation; and
a memory device coupled to the memory bus and adapted to:
 establish a predetermined window of time to capture the data, and
 perform a column redundancy check in response to the memory operation during the predetermined window of time.

66. (New) The computer system of claim 65, wherein
the signals include signals that indicate a write command, and
the memory device is further adapted to capture said signals that indicate the write command in synchronization with a clock signal and begin an internal write operation to a memory cell array of the memory device in synchronization with the clock signal.

67. (New) The computer system of claim 66, wherein the memory device begins performing the column redundancy check on a first edge of the clock signal and begins performing the internal write operation on another edge of the clock signal.

68. (New) The computer system of claim 67, wherein said another edge comprises the next successive edge of the clock signal after the first edge.

69. (New) The computer system of claim 66, wherein the memory device begins the internal write operation in response to a column address trap signal, and the memory device includes a control circuit to assert the column address trap signal synchronously with the edge of the clock signal.

70. (New) The computer system of claim 69, wherein the control circuit asserts another signal to equalize data I/O lines of the memory device for a first time interval that begins after the memory device begins the internal write operation.

71. (New) The computer system of claim 65, wherein the memory device comprises a double data rate (DDR) synchronous dynamic random access memory (SDRAM) device.